

2. (Amended) Process according to Claim 1, wherein the forming surface in an end zone is again at a smaller entry angle than in the intermediate zone.

3. (Amended) Process according to Claim 1, wherein the forming surface, following the zone with the largest entry angle, comprises a so-called land zone, with an entry angle = 0° .

4. (Amended) Process according to Claim 2, wherein the entry angle has a fixed value in each of the zones.

5. (Amended) Process according to Claim 2, wherein there is a smooth change in the entry angle over the length of the forming surface.

6. (Amended) Process according to Claim 5, wherein the transitions between successive zones, and/or such zones themselves run in the form of an arc of a circle.

7. (Amended) Process according to Claim 1, wherein the wall-ironing tool comprises a plurality of forming surfaces.

8. (Amended) Process according to Claim 1, wherein the wall-ironing tool comprises a plurality of wall-ironing rings.

9. (Amended) Process according to Claim 1, wherein 60 to 90% of the total wall thinning is produced by the corresponding forming surface in the zone running at the largest entry angle, the so-called main zone.

10. (Amended) Process according to Claim 9, wherein 10 to 30% of the total wall thinning is produced by the corresponding forming surface in the starting zone.

11. (Amended) Process according to Claim 9, wherein less than 30% of the total wall thinning is produced by the corresponding forming surface in the end zone.

12. (Amended) Process according to Claim 1, wherein the length of the starting zone and/or of the end zone, under otherwise identical conditions, is set in such a way that the plastic coating is not torn off the metal sheet as a result of the wall ironing.

13. (Amended) Process for the wall ironing of a product in sheet form, which is formed from a metal sheet coated on at least one side with a layer of plastic, comprising

moving the product with a plastic coating layer in a direction of movement along a forming surface of a wall-ironing tool during the wall ironing, the forming surface being at an entry angle with respect to the direction of movement of the product,

wherein in a zone of the forming surface which runs at the largest entry angle, the plastic layer is held under an elevated pressure P_0 (in MPa) on all sides, and the plastic used for the coating layer is characterized by values of the parameters μ (no units); τ_0 (in MPa) and A_0 (in sec), which are as follows:

$$\mu \geq 0.03 ; \tau_0 \geq 0.60 \text{ and } A_0 \geq 2.0 \times 10^{19}.$$

14. (Amended) Process according to Claim 13, wherein the parameters μ , τ_0 and A_0 are as follows: $\mu \geq 0.047$; $\tau_0 \geq 0.90$ and $A_0 \geq 3.0 \times 10^{19}$.

15. (Amended) Process according to Claim 13, wherein the plastic used is also characterized by values for the parameters $T_{g, 1 \text{ atm}}$ and $T_{g, 600 \text{ MPa}}$ (in °C) which are as follows: $T_{g, 1 \text{ atm}} \geq 30^\circ\text{C}$, and $T_{g, 600 \text{ MPa}} \geq 200^\circ\text{C}$.

16. (Amended) Process according to Claim 15, wherein the parameter $T_{g, 1 \text{ atm}}$ is as follows: $T_{g, 1 \text{ atm}} \geq 70^\circ\text{C}$.

17. (Amended) Wall-ironing tool comprising a wall-ironing ring, comprising a forming surface, along which a sheet-like product can be moved in a direction of movement during the wall

ironing, which forming surface is at an entry angle with respect to the direction of movement of the product, wherein the entry angle varies over the length of the forming surface, in the direction of movement of the product, this angle being smaller in a starting zone of the forming surface than in the subsequent zone thereof.

18. (Amended) Wall-ironing tool according to Claim 17, wherein the subsequent zone is an intermediate zone and the forming surface further comprises an end zone subsequent to the intermediate zone which is again at a smaller entry angle than in the intermediate zone.

19. (Amended) Wall-ironing tool according to Claim 17, wherein the forming surface further comprises an end zone, subsequent to the intermediate zone, and between the intermediate zone and the end zone there is a land zone with a length of between 0.3 and 1.5 mm.

20. (Twice Amended) Wall-ironing tool according to Claim 17, wherein the entry angle has a fixed value in each of the zones.

21. (Amended) (Amended) Wall-ironing tool according to Claim 17, wherein there is a smooth change in the entry angle over the length of the forming surface.

22. (Amended) Wall-ironing tool according to Claim 21, wherein the transitions between successive zone, and/or the zones themselves, run in the form of an arc of a circle with a radius of a length of between 0.1 and 10 mm.

23. (Amended) Wall-ironing tool according to Claim 17, wherein the zone having the largest entry angle, which is named a main zone, forms between 60 and 90% of the transverse dimension of the forming surface, transversely with respect to its longitudinal direction.

24. (Amended) Wall-ironing tool according to Claim 23, wherein the starting zone forms between 10 and 30% of the transverse dimension of the forming surface.

25. (Amended) Wall-ironing tool according to Claim 23, further comprising an end zone, subsequent to the intermediate zone, wherein the end zone forms less than 30% of the transverse dimension of the forming surface.

26. (Amended) Wall-ironing tool in the form of a wall-ironing ring, according to Claim 17, wherein this wall-ironing ring is under a radial prestress on its outer circumferential surface, due to a strip or wire which has been wound around the ring under stress.

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